




**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL WEATHER SERVICE  
Silver Spring, Md. 20910

MEMORANDUM FOR: All NWS Regional Headquarters, Regional  
Maintenance Specialists, Electronic Systems  
Analysts, and Electronics Technicians  
[Engineering Handbook (EHB)-13, Series II  
distribution]

FROM: W/OPS1 - John McNulty   
SUBJECT: Transmittal Memorandum for EHB-13 Series II,  
Issuance 01-24

1. Material Transmitted:

Engineering Handbook No. 13 Series II, Advanced Weather  
Interactive Processing System (AWIPS), section 3.1, AWIPS  
Software Installation Instruction Note 21, Maintenance  
Release 5.1.1.1. Patch number SEC\_A100151.

2. Summary:

AWIPS Software Installation Instruction Note 21, provides  
instructions for maintenance release 5.1.1.1.

3. Effect on Other Instructions:

File this note in EHB-13, Series II, section 3.1. Discard  
all previous software installation instructions in  
section 3.1.



AWIPS SOFTWARE INSTALLATION INSTRUCTIONS 21 (for Electronic Systems Analysts)  
Maintenance, Logistics, & Acquisition Division  
W/OPS1: FJZ

**SUBJECT** : Maintenance Release 5.1.1.1.

**PURPOSE** : This release installs nine patches.

**PATCH NUMBER** : SEC\_A100151

**AUTHORIZATION** : The authority for this modification note is Request for Change AA392

**AFFECTED SITES** : All AWIPS Release 5.1.1 sites must install this maintenance release.

**VERIFICATION STATEMENT** : The Release 5.1.1.1 installation procedures were tested and verified at the Columbia, SC (CAE); Caribou, ME (CAR); Charleston, SC (CHS); Knoxville, TN (MRX); and Philadelphia, PA (PHI) WFOs.

**PREINSTALLATION: REQUIREMENTS** :  
1. R5.1.1 must be installed.  
2. R5.0 IFPS or R5.1.1 IFPS software must be installed.

**TIME REQUIRED** : Approximately 15 minutes

**SECURITY LEVEL** : root

**TECHNICAL SUPPORT** : For questions or problems regarding these installation instructions or installing this Release, please contact the NCF at 301-713-9344.

<p><b>NOTE:</b> Maintenance Release 5.1.1.1 must be installed on or before November 1, 2001.</p>
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**GENERAL**

The summary of R5.1.1.1 fixes are as follows:

1. New wind chill display software for D2D (DR #8995 - P511\_FSL\_A100150)
2. New wind chill formula for the winter of 2001-2002 (DR #8996 - P511\_MDL\_A100149)
3. Install R5.1.1 IFPS Patch #1 (DR #8825, 9163 - P511\_MDL\_A100156)
4. Fix incomplete WMO header which causes lost warning products (DR #8933 - P511\_FSL\_A100155)
5. Fix log permissions for WAN Command Line Interface (DR #9202 - P511\_SEC\_A100160)
6. Correct processSummary.pl bug that generates large logs (DR #8179 - P511\_PRC\_A100158)
7. Monitor tool for radar product notifications (DR #8981, 9040 - P511\_PRC\_A100159)
8. Fix fuser problem with NFSv3 (DR #6519, 7324 - P511\_PRC\_A100157)
9. Public zone forecasts without using the "Extended Forecast" wording

**R5.1.1.1 Detailed Description**

1. New wind chill display software for D2D (DR #8995 - P511\_FSL\_A100150) OCWWS has changed the wind chill formula which applies to the winter of 2001-2002. This software update is required for the D2D display to plot wind chill values selected in the new wind chill formula.
2. New wind chill formula for the winter of 2001-2002 (DR #8996 - P511\_MDL\_A100149) OCWWS has changed the wind chill formula which applies to the winter of 2001-2002. This software update is required for the D2D display, climate products, and IFPS products to select changes in the new wind chill formula.
3. Install R5.1.1 IFPS Patch #1 (DR #8825, 9163 - P511\_MDL\_A100156)  
S Corrects the problem with Day 3 not displaying properly in the IGR text window.  
S Corrects ZFP to produce correct temperature when Day 3 is combined.
4. Fix incomplete WMO header which causes lost warning products (DR #8933 - P511\_FSL\_A100155) Change needed to comply with WMO standard 386, which states every product has a unique WMO header. When WFOs sectorize warning operations and two forecasters send the same warning during the same minute, the WMO lines are the same. Software will use the WMO standard field called the 'BBB' field, with an 'RRA' for the second transmission of the same product type in the same minute, and 'RRB' for the third transmission of the same product type in the same minute, etc.

5. Fix log permissions for WAN Command Line Interface (DR #9202 - P511\_SEC\_A100160) If a site is running "run\_rpf\_batch" from their oper cron, all submissions to "distributeProduct" and "handleOUP" will fail due to permission problems. These logs are now shared thus must have '666' permissions to allow other users access.
6. Correct "processSummary.pl" bug that generates large logs (DR #8179 - P511\_PRC\_A100158) A condition can occur that causes the "processSummary.pl" process to continuously log errors. This results in the "/data/logs" partition quickly filling to 100% on the as1swap platform.
7. Monitor tool for radar product notifications (DR #8981, 9040 - P511\_PRC\_A100159) A new radar product notification timing monitoring tool will be enabled on ws1. This non-intrusive tool will allow the AWIPS Program to objectively collect timing data for radar product notifications. The tool will execute regardless of whether the workstation is logged on or has D2D displaying radar data. It will register with the notification server for one product and log when the notification is received. In conjunction with this tool, there is a daily script that initiated automatically from the NCF to process the data. The script retrieves and parses the workstation log and the Radar Storage log, and matches up valid time, storage time, and notification time. The output provides data on: (a) if the product was received at all, (b) if the notification was sent to the workstation, and (c) how long it took from storage to notification. This will greatly enhance NWS's ability to measure if and when delays in radar notification are experienced during field operations.
8. Fix fuser problem with NFSv3 (DR #6519, 7324 - P511\_PRC\_A100157) during DS failovers, NFS-mounted partitions may become stale on NFS client platforms, such as workstations. With the transition to NFSv3, the "/usr/sbin/fuser" command has been unable to recognize processes running within NFS-mounted partitions. ONC+ compatibility mode is a global system settings that controls the behavior of certain NFS subsystem APIs. Consistent with future upgrades to HP-UX and NFSv3, ONC+ compatibility mode is being disabled. This change applies to NFS clients services only.
9. Allows the IFPS software to prepare public zone forecasts without using the "Extended Forecast" wording. This change is mandated by the new C-11 chapter which goes into effect on September 5, 2001.

This maintenance release makes the following IFPS changes:

- S Adds a script to remove the ".EXTENDED FORECAST..." line from the ZFP
- S Modifies zfp.bat to include the script that removes the ".EXTENDED FORECAST..." line
- S Adds a script to determine the "extended" forecast periods in order to allow SAF to continue to have a single extended forecast for each radio tower

- S Modifies "capture\_off\_words.bat" to include the script that marks forecast periods as extended
- S Replaces the contents of the "period\_layout" table with new ZFP and SAF entries which have the day 3 forecast broken into two 12-hour periods
- S Updates the factory setting of the "snow\_accum\_pop" control constant, changing it from 50 to 60
- S Updates the factory setting of wind control constant number 11, changing it from 22 to 29. This limits the use of "GUSTY" phrasing
- S Replaces the probabilities table in order to limit the use of Widely Scattered.

\*\*\*\*\* **IMPORTANT** \*\*\*\*\*

1. The focal point should ensure that the period\_layout table in the ifps\_ccc database (ccc is replaced with the site's three letter ID) is properly configured for two (2) 12 hour period in day three. See the IFPS User's Guide for details on configuring the period\_layout table.
2. If not already, IPFS will be made compliant with the revised policy chapter (C-11) for the Zone Forecast Product (ZFP)

\*\*\*\*\* **IMPORTANT** \*\*\*\*\*

## PREREQUISITE

1. Release 5.1.1 MUST be installed
2. Log out of all D2D sessions and the Text Workstations

## PROCEDURE

### A. Maintenance Release download and ds1 Installation Procedure

**NOTE:** PRC has pushed the "R5.1.1.1.tar.Z" file to the "/data/local/R5.1.1.1" directory at each AWIPS site.

1. At a workstation, open a telnet window and log into ds1 as **root** by typing:

```
rlogin ds1-<site> -l root
```

2. Change to the "/data/local/R5.1.1.1" directory by typing:

```
cd /data/local/R5.1.1.1
```

3. Start the output script log by typing:

```
script -a R5.1.1.1.out
```

4. Uncompress the release bundle by typing:

```
zcat R5.1.1.1.tar.Z | tar xvf -
```

5. Run installation script by typing:

```
./installR5.1.1.1
```

6. Stop the output script by typing:

```
./stopscript
```

This completes the maintenance release download and installation procedure.

## **B. Post Installation Configuration Checkout**

1. Check for any files that may not have been removed/copied correctly (Look for any "cannot write: Text file busy" messages. If present, file will have to be manually removed/copied)

```
=> grep busy R5.1.1.1.out
```

2. If the C-11 update for Zone Forecast Product (ZFP) is executed, the site **MUST** complete the necessary configuration and/or merging of site-specific modifications.

**S** A new "zfp.bat" file is placed in "/awips/adapt/ifps/localbin". The previous version (if one existed) can be found at "/awips/adapt/ifps/localbin/zfp.bat.sitemod". It is necessary to merge any site modifications to this script into the new version of "zfp.bat" located in "/awips/adapt/ifps/localbin".

**S** If necessary, use "config\_ifps" to update the active settings of the "snow\_accum\_pop" and wind control constant member number 1.

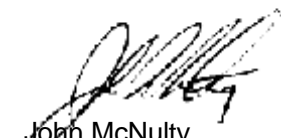
3. The baseline fxa cron on DS1 (i.e. "/awips/fxa/bin/ingest.crontab.ds1") will be modified by this installation. Any site modifications will need to be redone.

This completes the post installation configuration checkout.

**REPORTING MODIFICATION**

Report the completed modification on a WS Form A-26, Maintenance Record according to instructions in Engineering Handbook 4 (EHB-4), Engineering Management Reporting System (EMRS), Part 2, and appendix I. A sample A-26 form is attached. As an additional guide, use the information in the table below.

Block #	Block Type	Information
5	Description	AWIPS maintenance release 5.1.1.1 Software Installation Instruction note 21.
7	Equipment Code	AWIPS
8	Serial Number	001
15	Comments	Installed AWIPS maintenance release 5.1.1.1 I.A.W. Software Installation Instruction Note 21.
17a	Mod. No.	S21



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Attachment - Sample A-26 form

## ATTACHMENT A

WS FORM A-26 (4/94)		WS FORM A-26 (4/94)				U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE				Document Number <b>G 49978</b>					
<b>ENGINEERING MANAGEMENT REPORTING SYSTEM MAINTENANCE RECORD</b>															
<b>General Information</b>		1. Open Date <b>10 / 22 / 01</b>		Time <b>0900</b>		2. Initials <b>JMM</b>		3. Response Priority (check one) <input type="radio"/> Immediate <input type="radio"/> Low <input type="radio"/> Routine <input checked="" type="radio"/> Not Applicable		4. Close Date <b>10 / 22 / 01</b>		Time <b>1000</b>			
5. Description		<b>Install AWIPS Maintenance Release 5.1.1.1 I.A.W. AWIPS Software Installation Instruction Note 21</b>													
<b>Equipment Information</b>		6. Station ID <b>FFC</b>		7. Equipment Code <b>AWIPS</b>		8. Serial Number <b>001</b>		9. TM <b>M</b>		10. AT <b>M</b>		11. How Mal. <b>999</b>			
12. EQUIPMENT OPERATIONAL STATUS TIMES		a. Fully Operational <input type="text"/>		b. Logistics Delay <input type="text"/>		Partly Operational		c. All Other <input type="text"/>		d. Logistics Delay <input type="text"/>		Not Operational <input type="text"/>		e. All Other <input type="text"/>	
<b>13. Parts Failure Information</b>														<b>14. Work Load Information</b>	
Block #	a. ASN	b. NSN	c. TM	d. AT	e. How Mal.	f. Qty.	g. Maint. Hrs.	Type	Staff Hrs.						
1								a. Routine							
2								b. Non-routine							
3								c. Travel							
4								d. Misc.	<b>1:00</b>						
5								e. Overtime							
<b>Miscellaneous Information</b>		15. Maintenance Comments <b>Upgraded AWIPS System Software by installing Maintenance Release 5.1.1.1, I.A.W. AWIPS Software Installation Note 21</b>										16. Initials <b>JMM</b>			
17. SPECIAL PURPOSE REPORTING		a. Mod. No. <b>S21</b>		b. Mod./Act./Deact.Date <b>10/22/01</b>		c.		d.		e.					
18. CONFIGURATION MGMT. REPORTING (use as directed)		ASN		Vendor Part Number (New Part)				Serial Number (Old Part)		Serial Number (New Part)					